CENTER FOR ADVANCED AVIATION SYSTEM DEVELOPMENT (CAASD)

Safe Flight 21
Implementing Broadcast Services

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ICNS Conference, Fairfax, VA

3 May 2005

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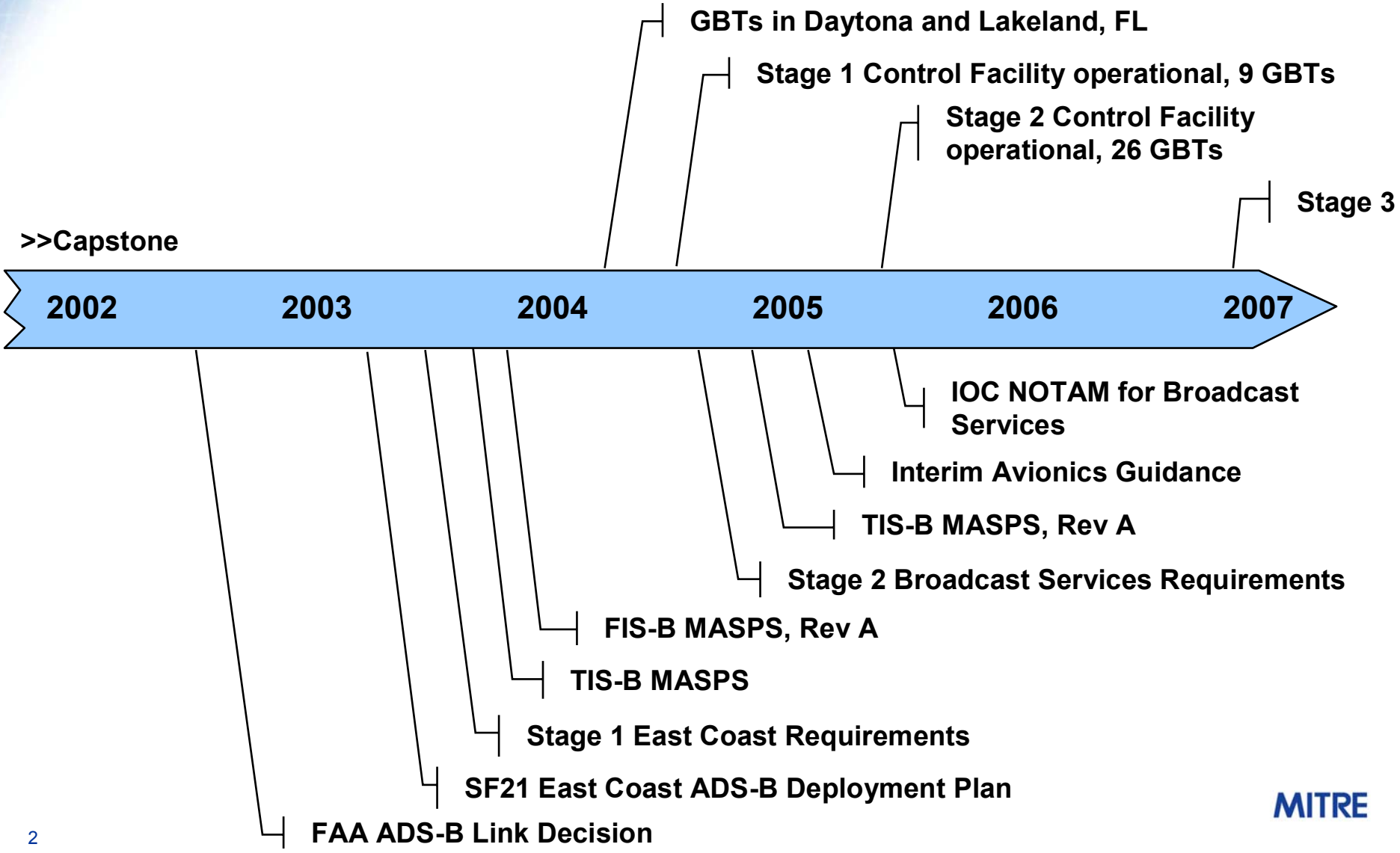
Broadcast Services Implementation Time Line



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Broadcast Services Implementation
Stage 1 Capabilities

- Operational June 2004
- ~25 ground stations
- TIS-B Service - Many system requirements met
  - Regional tracking using separate trackers
  - Multi-sensor tracking on reinforced targets
  - Basic report filtering (e.g., Mode A code)
  - ~60 radar feeds
- FIS-B Service – All system requirements met
  - Graphical precipitation
  - METARs & TAFs

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Broadcast Services Implementation Stage 2 Capabilities

- Operational May 2005
- ~70 ground stations
- Service Availability goal >99% (<48 hrs per event)
- TIS-B Service - Most system requirements met
  - Wide area tracking using consolidated tracker
  - Multi-sensor tracking on all secondary surveillance targets
  - Full report filtering capabilities
  - Surveillance sensor monitoring
  - Service Status reporting to users
  - ~100 radar feeds
- FIS-B Service – Additional products added
  - AIRMETS, SIGMETS, Convective SIGMETS, Winds Aloft
  - Graphical TFR NOTAMs on the wish list

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Broadcast Services Implementation
Stage 3 Capabilities

- Operational in early 2007 (estimated)
- Capable of delivering national service
- ~ 500 ground stations
- Service Availability goal >99.9% (<10 min per event)
- TIS-B Service - All system requirements met
  - Wide area tracking using networked trackers
  - ADS-B Rebroadcast Service (UAT and 1090ES)
  - ~300 radar feeds
- FIS-B Service – Additional products added
  - Planning underway

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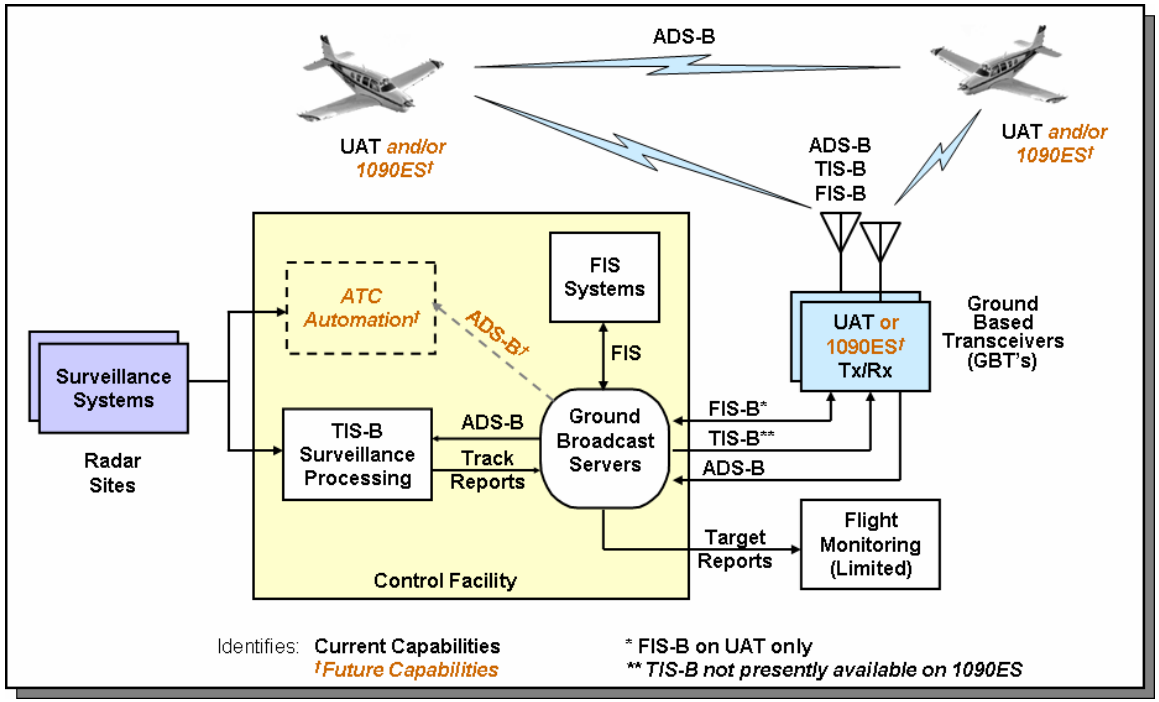
Broadcast Services Implementation System Architecture & Requirements



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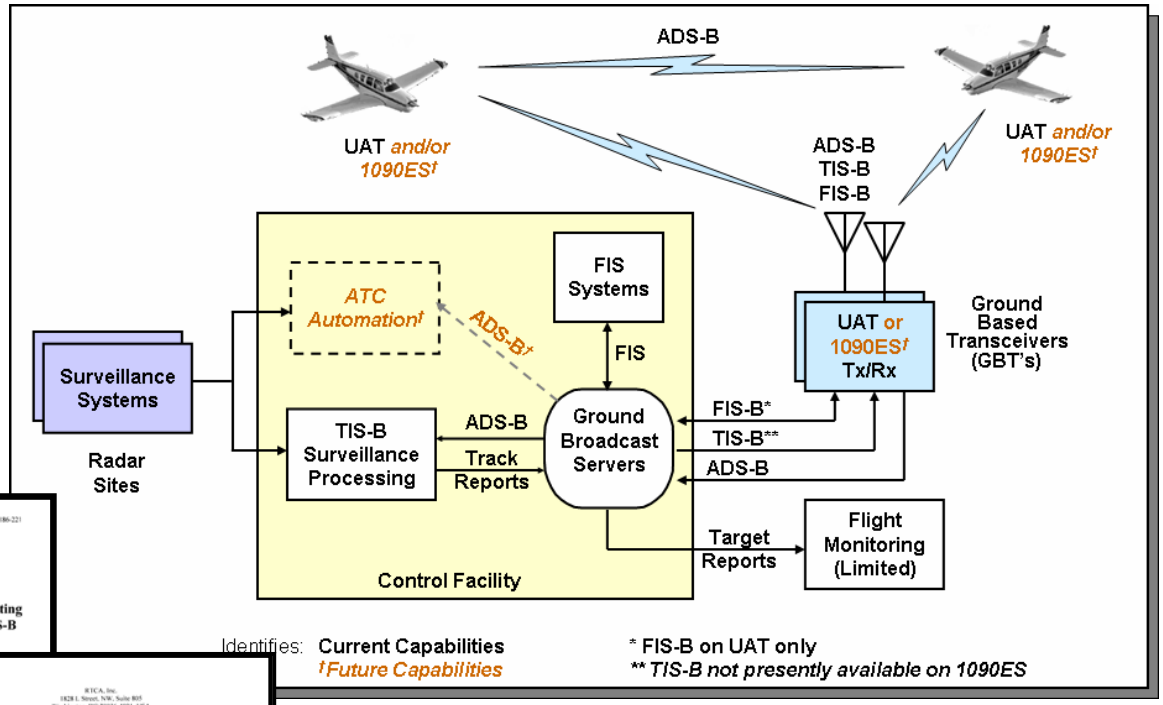
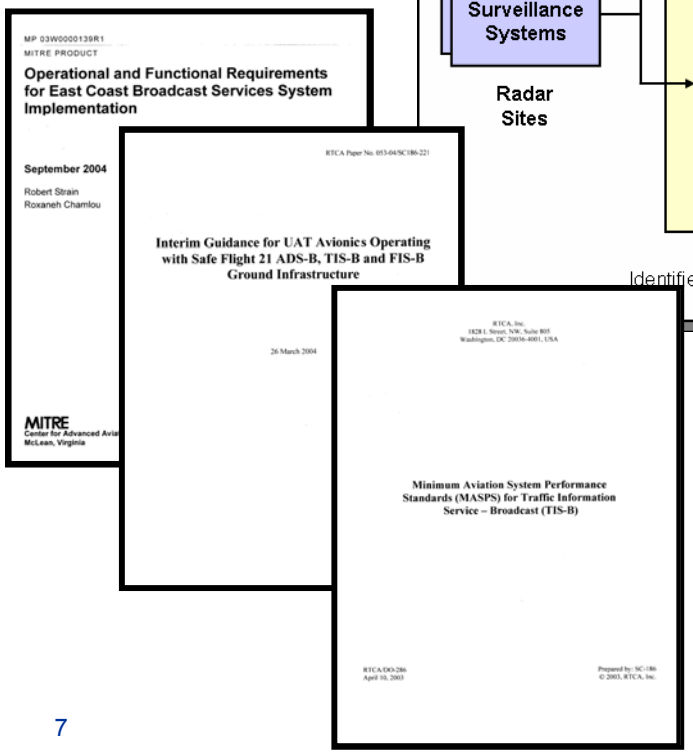
Broadcast Services Implementation System Architecture & Requirements





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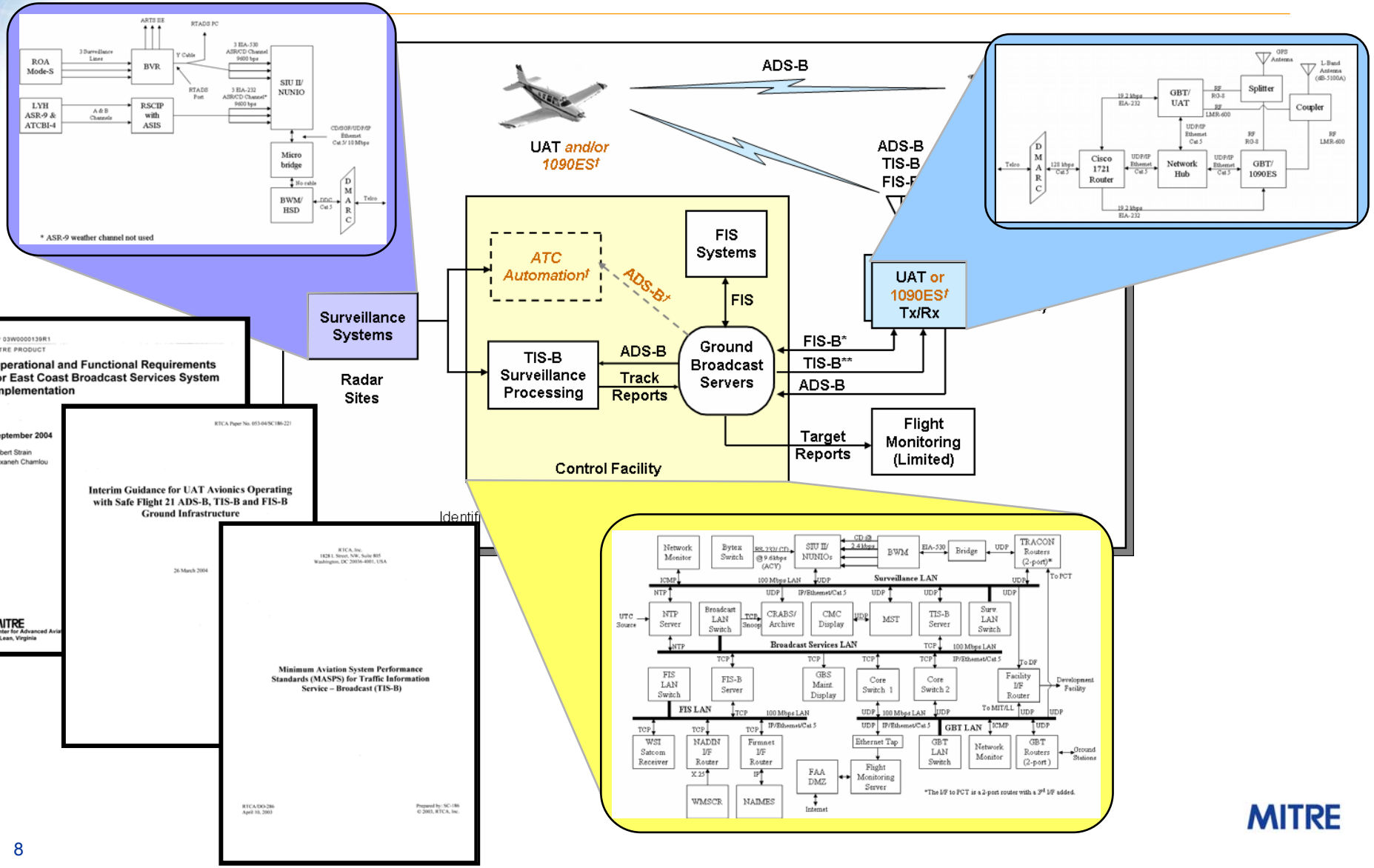
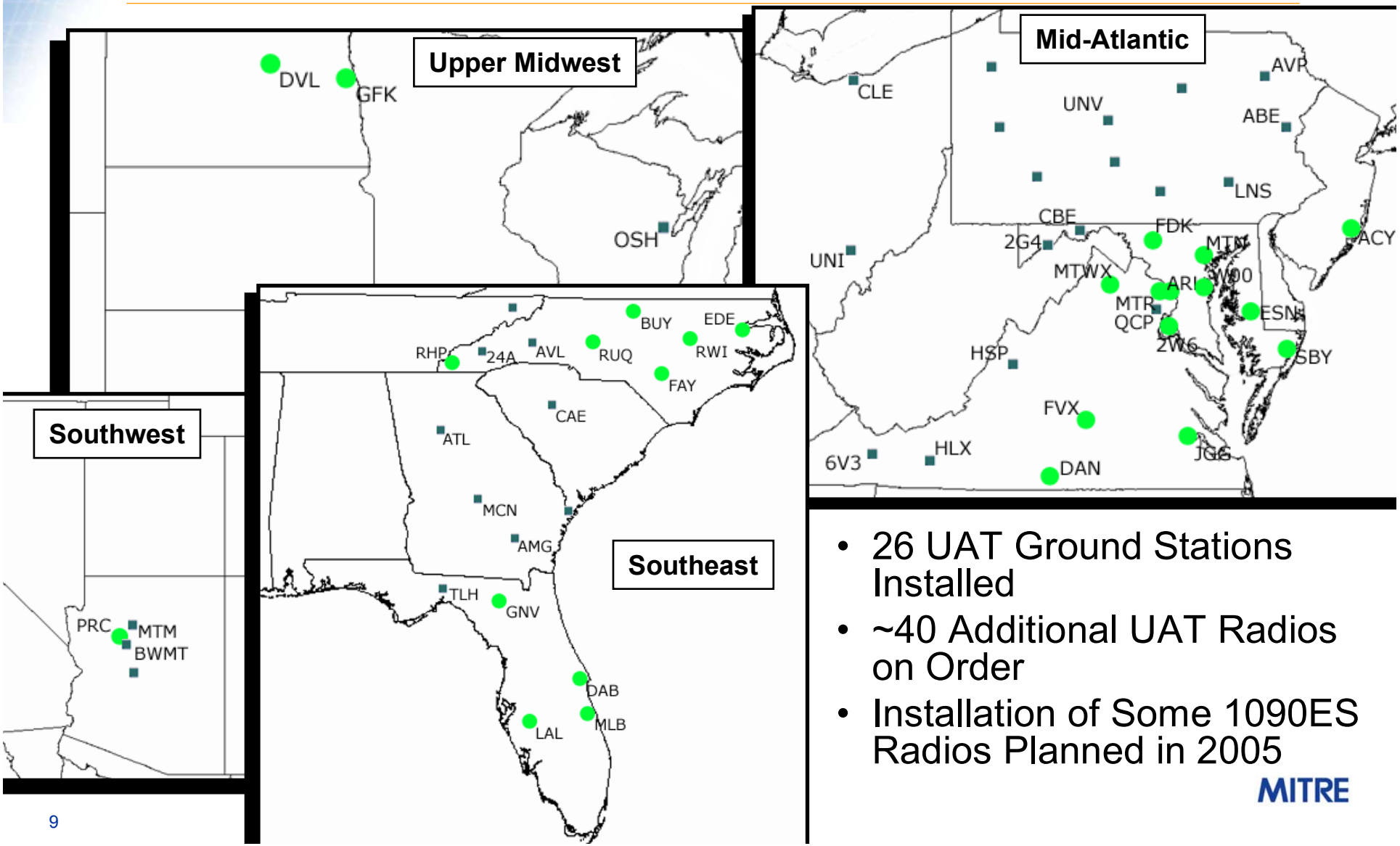
Broadcast Services Implementation System Architecture & Requirements



Broadcast Services Implementation Ground Station Installation Status



- 26 UAT Ground Stations Installed
- ~40 Additional UAT Radios on Order
- Installation of Some 1090ES Radios Planned in 2005

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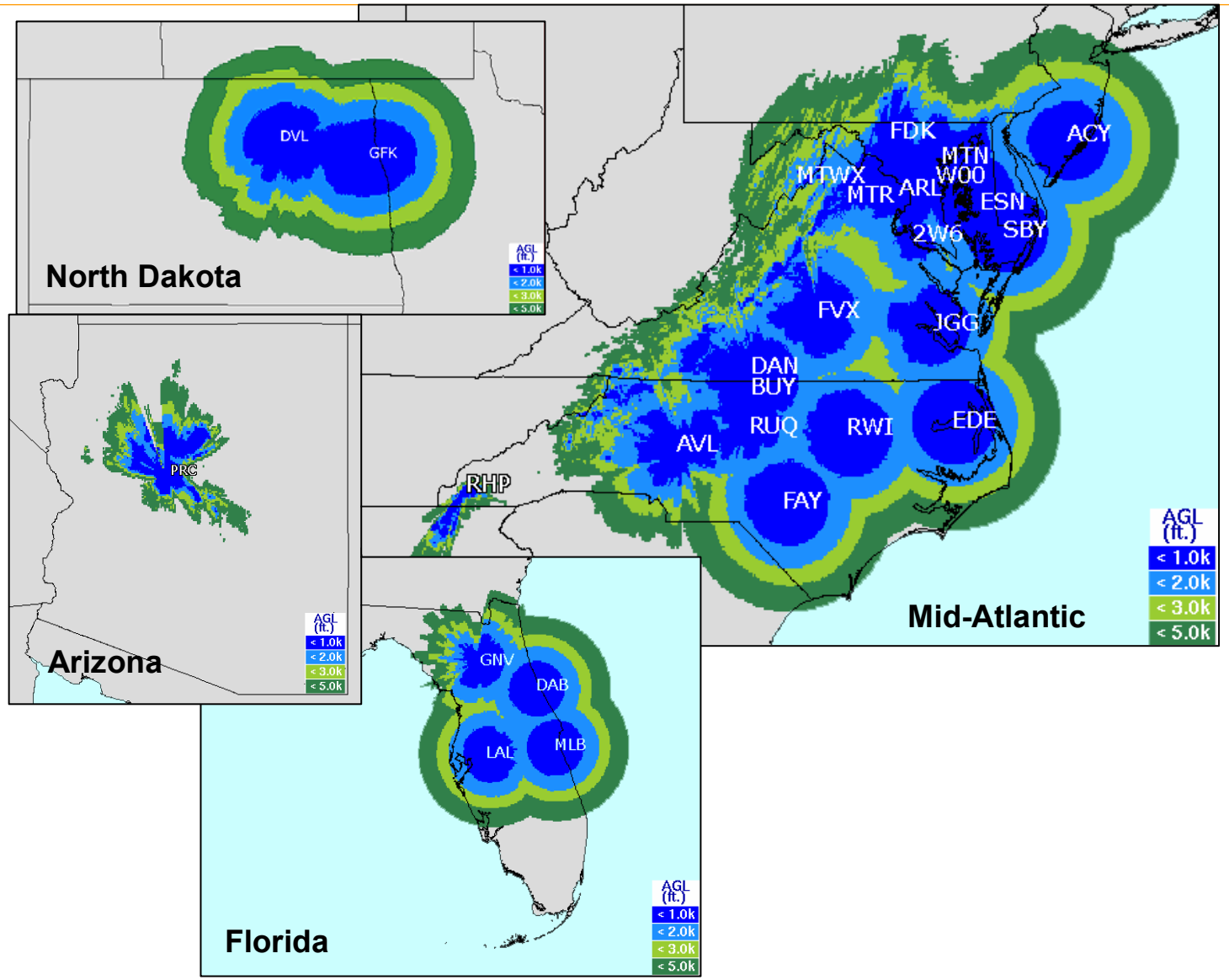
Broadcast Services Implementation
Current Service Availability



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Broadcast Services Implementation
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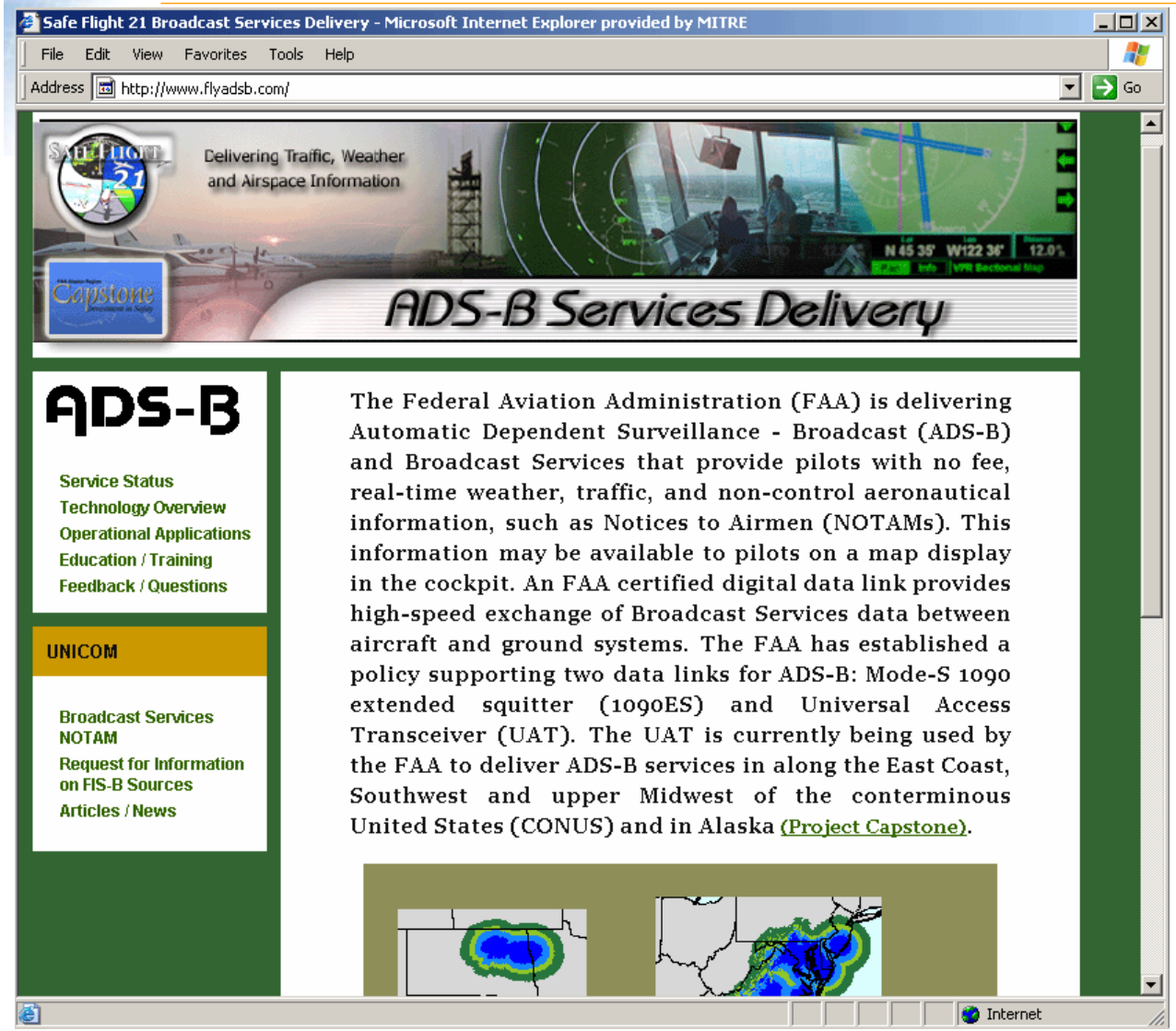

- Service Status
- Education & Training Material
- Technology Overviews
- User Feedback
- Related News

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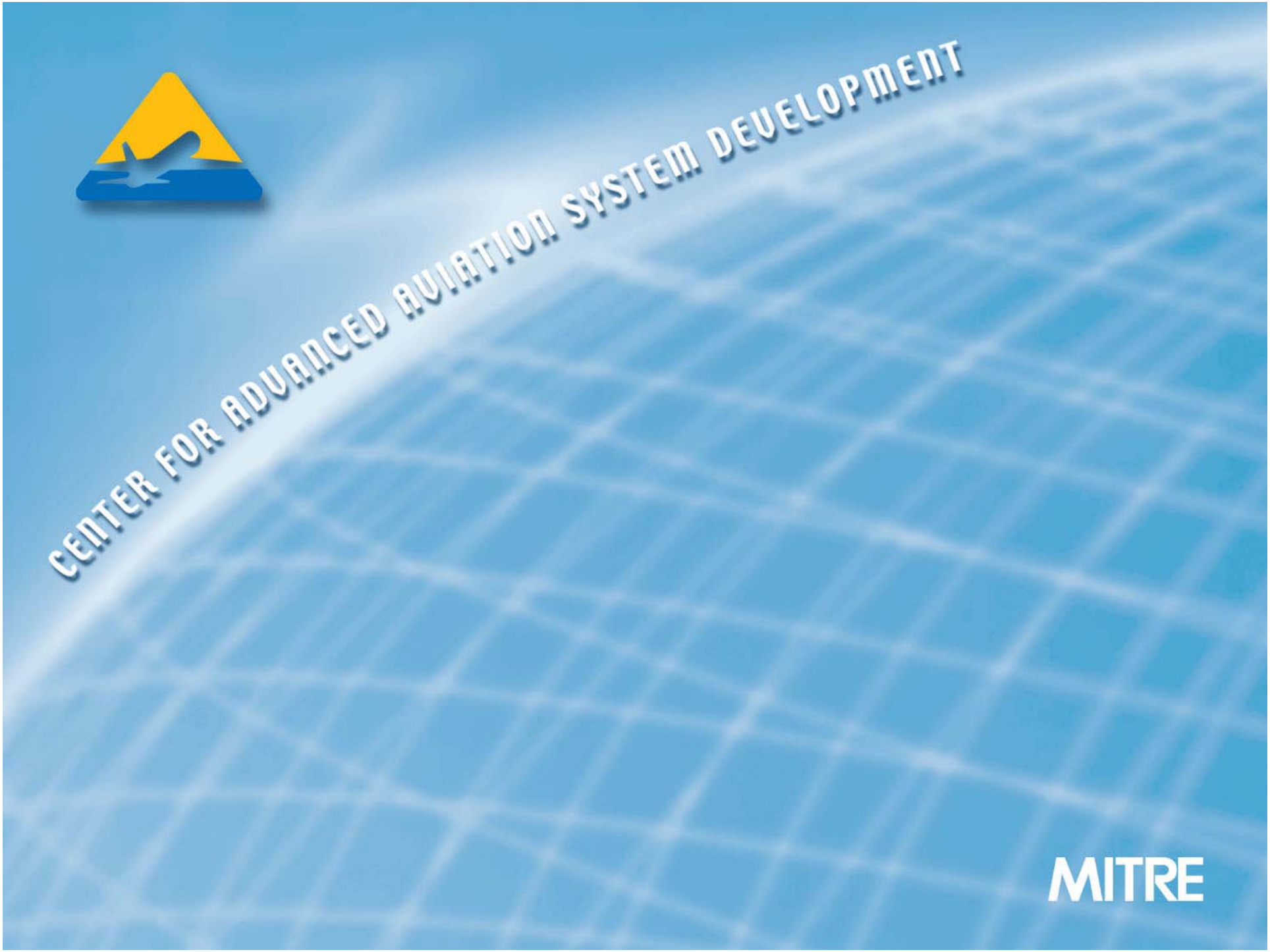
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